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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,951	06/26/2001	Jeffrey E. Stall	MSFT116666	4094

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EXAMINER	
ANYA, CHARLES E	

ART UNIT	PAPER NUMBER
2126	4

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/892,951	STALL, JEFFREY E.
	Examiner	Art Unit
	Charles E Anya	2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3/ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) *13-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-22* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/25/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 22 are pending in this application.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1 – 12, Group I, drawn to a method of sending a message between user interface threads using message queue, classified in class 719, subclass 313.

II. Claims 13 – 17, Group II, drawn to a method for processing the content posted in a message queue, classified in class 709, subclass 213.

III. Claims 18 – 22, Group III, drawn to a method of providing a queue bridge for passing messages between a window manager and a legacy window manager, classified in class 345, subclass 700.

3. Inventions Group I, Group II and Group III are related as subcombinations disclosed as usable together in a single combination. Group I is drawn to a method of sending a message between user interface threads using message queue. Meanwhile Group II and Group III are drawn to a method for processing the content posted in a message queue and to a method of providing a queue bridge for passing messages between a window manager and a legacy window manager. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, inventions Group I, Group II and Group III has separate utility such as the search for

Group I or Group II invention is not required for Group III invention and vice versa. See MPEP § 806.05(d).

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and the search required for Group I are not required for Group II and vice versa, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Mr. Gary Kindness on June 21, 2004 a provisional election was made without traverse to prosecute the invention of Group I, claims 1 - 12.

7. Affirmation of this election must be made by applicant in replying to this Office action and applicant is required to cancel the non-elected claims. Claims 13 – 22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 6,7,11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim dependency of claims 6,7,11 and 12 are unclear and makes the claims indefinite. For the purpose of this office action the examiner assume that claims 6 and 7 depend on claim 1 while claims 11 and 12 depend on claim 8.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 1,6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,664,190 to Cohen et al. in view of U.S. Pat. No. 6,487,652 B1 to Gomes et al.

13. As to claim 1, Cohen teaches a method for sending a message via a high-performance message queue (figures 2/3 Col. 3 Ln. 52 – 67, Col. 1 – 67), comprising: providing a message queue associated with a context (Col. 3 Ln. 56 – 59, Col. 4 Ln. 13 – 16), executing a user interface thread associated with said context (Col. 4 Ln. 13 – 15, Col. 5 Ln. 1 – 19), receiving a request from said user interface thread to send a message to a second user interface thread (Col. 4 Ln. 13 – 15, Col. 5 Ln. 1 – 19).

14. Cohen is silent with reference to determining whether said second user interface thread is associated with said context; and in response to determining that said second user interface thread is associated with said context, sending said message from said user interface thread directly to said second user interface thread, thereby bypassing said message queue.

15. Gomes teaches determining whether said second thread is associated with said context (Col. 3 Ln. 13 – 16, figure 4 Col. 7 Ln. 12 – 39), and in response to determining that said second thread is associated with said context, sending said message from said thread directly to said second user interface thread, thereby bypassing said message queue (Col. 3 Ln. 16 – 29, Col. 7 Ln. 36 – 39: NOTE: The "object" resource is queue).

16. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Gomes and Cohen because the

teaching of Gomes would improve the system of Cohen by reducing locking overhead (Gomes Col. 3 Ln. 6 – 13).

17. As to claims 6 and 7, see the rejection of claim 1.

18. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,664,190 to Cohen et al. in view of U.S. Pat. No. 6,487,652 B1 to Gomes et al. as applied to claim 1 above, and further in view of U.S. Pat. No. 5,434,975 to Allen.

19. As to claim 2, Gomes teaches the method of Claim 1, further comprising: in response to determining that said second user interface thread is not associated with said context (Col. 3 Ln. 26 – 29, 36 – 43).

20. Allen teaches atomically adding said message to a queue associated with a second context (Col. 6 Ln. 1 – 18).

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Allen and Cohen because the teaching of Allen would improve the system of Cohen by providing an efficient means for managing process switching (Allen Col. 5 Ln. 60 – 67).

22. As to claim 3, Cohen teaches the method of Claim 2, further comprising: atomically providing an indication to said second context that a message has been

added to said queue associated with said second context ("...appear..." Col. 5 Ln. 12 – 15).

23. As to claim 4, Cohen teaches the method of Claim 3 further comprising: waiting for an indication that: said message added to said queue associated with said second context has been processed and processing additional messages while waiting for said indication (Col. 4 Ln. 13 – 46).

24. As to claim 5, Gomes teaches the method of Claim 4, wherein adding said message to a queue associated with a second context comprises locking said message queue (Col. 3 Ln. 25 – 29) while Cohen teaches adding said message to a singly-linked list associated with said context (Col. 4 Ln. 13 –16).

25. Claims 8,9,11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,664,190 to Cohen et al. in view of U.S. Pat. No. 5,434,975 to Allen.

26. As to claim 8, Cohen teaches a method for posting a message via a high-performance message queue (figures 2/3 Col. 3 Ln. 52 – 67, Col. 1 – 67), comprising: providing a message queue associated with a context (Col. 3 Ln. 56 – 59, Col. 4 Ln. 13 – 16), executing a user interface thread associated with said context (Col. 4 Ln. 13 – 15, Col. 5 Ln. 1 – 19), receiving a request from said user interface thread to

post a message to a queue associated with a second context (Col. 4 Ln. 13 – 15, Col. 5 Ln. 1 – 19).

27. Cohen is silent with reference to atomically adding said message to said queue associated with said second context and atomically providing an indication to said second context that a message has been posted to said queue associated with said second context (Col. 6 Ln. 1 – 18).

28. Allen teaches atomically adding said message to said queue associated with said second context; and atomically providing an indication to said second context that a message has been posted to said queue associated with said second context.

29. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Allen and Cohen because the teaching of Allen would improve the system of Cohen by providing an efficient means for managing process switching (Col. 5 Ln. 60 – 67).

30. As to claim 9, Cohen teaches the method of Claim 8, further comprising: validating parameters associated with said message; determining a processing function to handle the dequeuing of said message; and completing a message entry for said message including said validated parameters and the identity of said processing function ("...appropriate..." Col. 5 Ln. 1 – 19).

31. As to claims 11 and 12, see the rejection of claim 8 above.

32. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,664,190 to Cohen et al. in view of U.S. Pat. No. 5,434,975 to Allen as applied to claim 8 above, and further in view of U.S. Pat. No. 6,487,652 B1 to Gomes et al.

33. As to claim 10, although Cohen as modified by Allen teaches atomically adding said queue associated with said second context and atomically adding said message entry to a singly-linked list associated with said context, he is silent with reference to locking system.

34. Gomes teaches locking system (Col. 3 Ln. 1 – 46).

35. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Gomes and Cohen as modified by Allen because the teaching of Gomes would improve the system of Cohen as modified by Allen by reducing locking overhead (Gomes Col. 3 Ln. 6 – 13).

Conclusion

36. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,507,861 B1 to Nelson et al.

U.S. Pat. No. 5,991,820 to Dean.

37. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Anya whose telephone number is (703) 305-3411. The examiner can normally be reached on M-F (8:30-6:00) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng-Ai can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles E Anya
Examiner
Art Unit 2126

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